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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/438,436	11/12/1999	JEFFREY MARK ACHTERMANN	AT9-99-655	9315

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EXAMINER

TODD, GREGORY G

ART UNIT	PAPER NUMBER
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2157

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/438,436

Applicant(s)

ACHTERMANN ET AL.

Examiner

Gregory G Todd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-15, 17-26 and 28-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-15, 17-26 and 28-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This is a fifth office action in response to applicant's amendment filed, 02 December 2004, of application filed, with the above serial number, on 12 November 1999 in which claims 5, 16, and 27 have been cancelled and claims 1, 12, and 23 have been amended. Claims 1-4, 6-15, 17-26, and 28-33 are therefore pending in the application.

Claim Rejections - 35 USC § 112

2. Claims 6-7 recite the limitation "the method of claim 5" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claims 17-18 recite the limitation "the system of claim 16" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claims 28-29 recite the limitation "the program product of claim 27" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 12-14, and 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Zolnowsky (hereinafter "Zolnowsky", 6,779,182).
5. Zolnowsky teaches the invention as claimed including job and thread prioritized scheduled (see abstract).

As per Claims 1, 12, and 23, Zolnowsky discloses a connection scheduling method, wherein Zolnowsky discloses:

determining if a job is available for scheduling (job scheduling) (at least col. 5, lines 13-21);

determining, in response to said step of determining if said job is available, if a session is available, wherein said session is included in a pool of sessions (threads), said pool of sessions having a preselected one of a set of priority levels corresponding to a priority level of said job and wherein said session effects an execution of said job (runnable threads in queue of threads with dispatch priority) (at least col. 6, lines 33-65); and

launching said session to effect said execution of said job, if said session is available (thread (and processor / job) selected for execution) (at least col. 7, lines 17-28; col. 8, lines 43-60); and

launching an error handling thread in response to an error condition, said error handling thread releasing said session (scheduling errors in thread queues) (at least col. 8, lines 3-17).

As per Claims 2, 13, and 24.

session comprises a thread (thread) (at least col. 6, lines 33-65).

As per Claims 3, 14, and 25.

creating a connection to a target system for execution of job (target processor being selected) (at least col. 10, lines 21-42).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 6-9, 15, 17-20, 26, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zolnowsky in view of Northrup (hereinafter "Northrup", 6,671,713).

Zolnowsky teaches the invention substantially as claimed including job and thread prioritized scheduled (see abstract).

As per Claim 4, 15, and 26.

Zolnowsky does not explicitly disclose determining if connection is an existing connection, and creating the connection is performed if connection is not an existing connection. However, Northrup teaches if a connection primitives wherein a thread communication service will run upon request for communication (at least col. 4, lines 22-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Northrup's connection primitives into

Zolnowsky's system as Northrup teaches communication occurring upon connection commencing.

As per Claims 6, 17, and 28.

Zolnowsky fails to explicitly disclose changing value of a job state from a first value to a second value in response to said launching of said error handling thread. Northrup teaches the use of a thread returning an error condition and "error" state (at least col. 56, lines 33-36; col. 55, lines 27-35; col. 27 line 66 - col. 28 line 15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of having a value being changed when an error occurs as Northrup discloses into Zolnowsky's system as this would reduce scheduling errors in Zolnowsky's system and define conditions of the thread.

As per Claims 7, 18, and 29.

the first value signaling that the job is available for scheduling (non-errors not being caught in verification step) (at least Zolnowsky col. 8, lines 11-17).

As per Claims 8, 19, and 30.

retrying the steps of determining if a job is available for scheduling, determining if a session is available, and launching said session in response to an error condition (at least Zolnowsky col. 8, lines 11-17; error resulting in selecting correct queue).

As per Claims 9, 20, and 31.

Zolnowsky fails to explicitly disclose the step of retrying to be repeated until a predetermined time interval has elapsed. However, the use and advantages for retrying tasks based on elapsed time is well known to one skilled in the art at the time the

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invention was made as evidenced by the teachings of Northrup (at least Northrup col. 10 line 49 - col. 11 line 18). Northrup discloses relaunching after a delay period after it attempts to relaunch immediately. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Northrup's time-interval thread launching into Zolnowsky's system because this would further allow tasks that could not be completed and relaunched the second time to attempt again at a later time when there might be less network congestion, for example.

8. Claims 10-11, 21-22, and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zolnowsky in view of Northrup and further in view of Rangarajan et al (hereinafter "Rangarajan", 6,260,077).

As per Claims 10, 21, and 32.

Zolnowsky and Northrup fail to explicitly disclose registering a callback method in response to an expiry of a predetermined time interval. However, the use and advantages for responding to a time expiration is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Rangarajan (at least Rangarajan Abstract; col. 17, lines 13-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Rangarajan's responding to an expiry of an elapsed time into Zolnowsky and Northrup's system because this would invoke an event to cause a thread to occur upon, for example an error, and allow the client application to perform its function and then return

control to Zolnowsky and Northrup's host computer (target system) upon the predetermined time interval.

As per Claims 11, 22, and 33.

Zolnowsky and Northrup fail to explicitly disclose the steps of determining if a job is available for scheduling, determining if a session is available, and launching said session being performed in response to an invoking of a callback method by a target system, the target system for execution of said job. However, the use and advantages for a target system responding to an elapsed time expiration is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Rangarajan (at least Rangarajan Abstract; col. 17, lines 13-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Rangarajan's responding to an expiry of an elapsed time into Zolnowsky and Northrup's system because this would invoke an event to cause a thread to occur upon, for example an error, and allow the client application to perform its function and then return control to Zolnowsky and Northrup's host computer (target system) upon the predetermined time interval, and thus have the requested task be entered into the thread and be completed.

Response to Arguments

9. Applicant's arguments filed 02 December 2004 have been fully considered but they are not persuasive.

Applicants argue Zolnowsky does not teach previous feature of original claim 5 now in claim 1, namely, launching an error handling thread in response to an error condition, said error handling thread releasing said session. As Applicant notes on page 10 line 5, the verification step thread of Zolnowsky (at least col. 8, lines 3-17) is provoked due to errors and resulting in a thread substitution, thus said substitution substituting one thread for another thread and equivalent to releasing the thread where a schedule lock takes the thread from the selected queue.

Applicants further argue a) Northrup does not teach features of claims 4, 15, and 26; b) Northrup does not teach features of claims 6, 17, and 28; c) Zolnowsky does not teach features of claims 7, 18, and 29; and d) features of claims 9, 20, and 31.

In response to a) Northrup teaches connection primitives wherein a thread communication service will run upon request for communication (at least col. 4, lines 11-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Northrup's connection primitives into Zolnowsky's system as Northrup teaches communication occurring upon connection commencing. Such a "connection" as stated in the claims is found in Northrup as any connection to another system is going to have an initial connection and for an initial connection to occur it has to be aware that the connection is initial and thus determined not to be an existing connection.

In response to b) Zolnowsky fails to explicitly disclose changing value of a job state from a first value to a second value in response to said launching of said error handling thread. Northrup teaches the use of a thread returning an error condition and

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"error" state (at least col. 56, lines 33-36; col. 55, lines 27-35; col. 27 line 66 - col. 28 line 15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of having a value being changed when an error occurs as Northrup discloses into Zolnowsky's system as this would reduce scheduling errors in Zolnowsky's system and define conditions of the thread. Zolnowsky is relied on for teaching launching of an error handling thread, and here Northrup is simply relied on for explicitly teaching transitioning to another value of "error" in a thread.

In response to c) Similarly to previous rebuttal of claim 1 in view of Zolnowsky, the verification step thread of Zolnowsky (at least col. 8, lines 3-17) is provoked due to errors and resulting in a thread substitution, thus said substitution substituting one thread for another thread and equivalent to releasing the thread where a schedule lock takes the thread from the selected queue, where in this case Zolnowsky not having errors indicating a "value" that in the verification step is regarded as being available for scheduling.

In response to d) As Applicant agrees at page 15, Northrup teaches performing desired operations at a predefined time and further, such operations as a result of some event later communicated to the service. Thus, such an event, as described above, being an error state, as it would have been obvious to one of ordinary skill at the time the invention was made that the main reason a service would be retried at a later time could only be due to an "error", such as a thread not being available or an error in the

thread itself, and that there would be absolutely no reason to retry something later after it is initially tried except for if there was a problem or "error" condition being met.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Newly cited Cohen et al and Bhagat et al in addition to previously cited Silva et al ('760), Hanif et al, Dixon et al, Herbert et al, Brackett et al, Marshall, Teng, Batra, Behm et al, Davis et al, Murray, Trugman, Morris et al, Sundararajan, Beaulieu et al, Farrell et al, Bigus, Silva et al ('537), Zolnowsky and Coffman et al and Ross et al are cited for disclosing pertinent information related to the claimed invention.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G Todd whose telephone number is (571)272-

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4011. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm w/ first Fridays off.

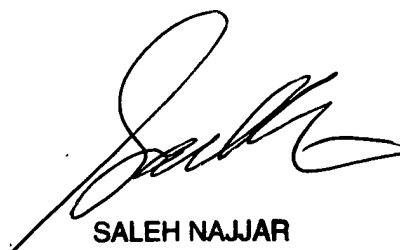
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory Todd 

Patent Examiner

Technology Center 2100


SALEH NAJJAR
PRIMARY EXAMINER